

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A telescopic shaft for steering of a vehicle, assembled in a steering shaft and including a male shaft and a female shaft that are so fitted as to be capable of transferring torque and to be movable in an axial direction relative to each other ~~not to be rotatable but to be slidable,~~

characterized in that a rolling member is fitted through an elastic body for pre-load between at least a pair of axially-extending grooves formed in an outer peripheral surface of said male shaft and in an inner peripheral surface of said female shaft,

a slide member is fitted in between at least another pair of axially-extending grooves formed in the outer peripheral surface of said male shaft and in the inner peripheral surface of said female shaft, and

when a steering torque is equal to or smaller than a predetermined level, said elastic body for the pre-load exhibits a low rigidity characteristic as said elastic body performs pre-load action; when the steering torque

is equal to or larger than the predetermined level, said slide member exhibits a high rigidity characteristic as said slide member engages with said pair of axially extending grooves; and two-staged torsional rigidity characteristics of the low rigidity characteristic and the high rigidity characteristic, are thereby provided.

2. (original) A telescopic shaft for steering of a vehicle according to claim 1, wherein said elastic body for the pre-load is constructed of one piece of leaf spring.

3. (original) A telescopic shaft for steering of a vehicle according to claim 1, wherein said elastic body for the pre-load is constructed of a composite body formed of different materials.

4. (currently amended) A telescopic shaft for steering of a vehicle with a Cardan shaft joint, to be assembled in a steering shaft, including a male shaft and a female shaft that are so fitted as to be capable of transferring torque and to be movable in an axial direction relative to each other ~~not to be rotatable but~~

~~to be~~ slidable, and receiving a connection of a yoke of a Cardan shaft joint,

characterized in that rolling members are fitted through an elastic body for pre-load between at least a pair of axially-extending grooves formed in an outer peripheral surface of said male shaft and in an inner peripheral surface of said female shaft,

a slide member is fitted in between at least another pair of axially-extending grooves formed in the outer peripheral surface of said male shaft and in the inner peripheral surface of said female shaft,

a buffer member is interposed between said yoke and any one of said male shaft and said female shaft,

said yoke is formed with an engaged portion, and any one of said male shaft and said female shaft is provided with an engaging member capable of engaging with and disengaging from said engaged portion, and

when a steering torque is equal to or smaller than a predetermined level, said engaging member does not engage with said engaged portion while said buffer member exhibits a low rigidity characteristic as said buffer member performs buffer action; when the steering torque falls within a predetermined intermediate range, said elastic body for the pre-load exhibits an intermediate

rigidity characteristic as said elastic body performs pre-load action; when the steering torque is equal to or larger than the predetermined level, said engaging member engages with said engaged portion while said slide member exhibits a high rigidity characteristic as said slide member engages with said pair of axially-extending grooves in a peripheral direction; and three-staged torsional rigidity characteristics of the low rigidity characteristic, the intermediate rigidity characteristic and the high rigidity characteristic, are thereby provided.

5. (currently amended) A telescopic shaft for steering of a vehicle, assembled in a steering shaft and including a male shaft and a female shaft that are so fitted as to be capable of transferring torque and to be movable in an axial direction relative to each other not to be rotatable but to be slidably,

characterized in that a first torque transfer portion, which includes a first torque transfer member and is interposed through an elastic body for pre-load, is formed between at least a pair of axially-extending grooves formed in an outer peripheral surface of said

male shaft and in an inner peripheral surface of said female shaft,

a second torque transfer portion member is formed interposed between at least another pair of axially extending grooves formed in the outer peripheral surface of said male shaft and in the inner peripheral surface of said female shaft, and

when a steering torque is equal to or smaller than a predetermined level, said elastic body for the pre-load exhibits a low rigidity characteristic as said elastic body performs pre-load action; when the steering torque is equal to or larger than the predetermined level, said second torque transfer portion member exhibits a high rigidity characteristic as said second torque transfer member engages with said pair of axially extending grooves; and two-staged torsional rigidity characteristics of the low rigidity characteristic and the high rigidity characteristic, are thereby provided.

6. (currently amended) A telescopic shaft for steering of a vehicle, assembled in a steering shaft and including a male shaft and a female shaft that are so fitted to be capable of transferring torque and to be

movable in an axial direction relative to each other as
not to be rotatable but to be slidably,

characterized in that a first torque transfer
portion, which includes a first torque transfer member is
interposed through and an elastic body, is formed in at
least one line of axially-extending groove formed in each
of an outer peripheral surface of said male shaft and an
inner peripheral surface of said female shaft,

a second torque transfer portion member is formed
interposed between at least another line of axially-
extending groove formed in each of the outer peripheral
surface of said male shaft and the inner peripheral
surface of said female shaft, and

said elastic body includes:

a transfer member sided contact portion being in
contact with said first torque transfer member;

a groove surface sided contact portion spaced at a
predetermined interval substantially in a peripheral
direction from said transfer member sided contact
portion, and being in contact with a groove surface of
said axially-extending groove of said male shaft or said
female shaft; and

a biasing portion elastically biasing said transfer
member sided contact portion and said groove surface

sided contact portion in such a direction as to get separated from each other.

7. (currently amended) A telescopic shaft for steering of a vehicle according to claim 6, wherein said first torque transfer portion member includes rolling members that roll when said two shafts make relative movements in the axial direction, and

said second torque transfer member includes a slide member that slides when said two shafts make the relative movements in the axial direction.

8. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said biasing portion of said elastic body takes a bent shape bent between said transfer member sided contact portion and said groove surface sided contact portion.

9. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said axially-extending groove of said male shaft or said female shaft has a flat side surface which is in contact with said groove surface sided contact portion of said

elastic body, and a bottom surface contiguous to said flat side surface,

 said elastic body has a bottom portion facing said bottom surface of said axially-extending groove, and

 said bottom portion of said elastic body is set in a contact state with said bottom surface of said axially-extending groove, or an interval between said bottom surface of said axially-extending groove and said bottom portion of said elastic body is set to a predetermined interval.

10. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said biasing portion of said elastic body is a separate portion from said transfer member sided contact portion and from said groove surface sided contact portion, and is formed of a different material.

11. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said elastic body includes, in addition to said transfer member sided contact portion, said groove surface sided contact portion and said biasing portion, a second

biasing portion formed of a different material as a separate portion.

12. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said elastic body is constructed of a leaf spring.

13. (previously presented) A telescopic shaft for steering of a vehicle according to claim 6, wherein said biasing portion provided as the separate portion and formed of the different material and said second biasing portion provided as the separate portion and formed of the different material, are made of a rubber or a synthetic resin.

14. (original) A telescopic shaft for steering of a vehicle according to claim 6, wherein a lubricating agent is applied between said axially-extending groove of said male shaft, said axially-extending groove of said female shaft, said elastic body and said first torque transfer member.

15. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said

biasing portion of said elastic body takes a bent shape bent between said transfer member sided contact portion and said groove surface sided contact portion.

16. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said axially-extending groove of said male shaft or said female shaft has a flat side surface which is in contact with said groove surface sided contact portion of said elastic body, and a bottom surface contiguous to said flat side surface,

said elastic body has a bottom portion facing said bottom surface of said axially-extending groove, and

said bottom portion of said elastic body is set in a contact state with said bottom surface of said axially-extending groove, or an interval between said bottom surface of said axially-extending groove and said bottom portion of said elastic body is set to a predetermined interval.

17. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said biasing portion of said elastic body is a separate portion from said transfer member sided contact portion and from said groove surface sided contact portion, and is formed of a different material.

18. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said elastic body includes, in addition to said transfer member sided contact portion, said groove surface sided contact portion and said biasing portion, a second biasing portion formed of a different material as a separate portion.

19. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said elastic body is constructed of a leaf spring.

20. (previously presented) A telescopic shaft for steering of a vehicle according to claim 7, wherein said biasing portion provided as the separate portion and formed of the different material and said second biasing portion provided as the separate portion and formed of the different material, are made of a rubber or a synthetic resin.